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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,240	02/26/2002	Yoshifumi Arai	YOKOP001	8018

22434	7590	01/25/2006

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EXAMINER
BAKER, CHARLOTTE M

ART UNIT	PAPER NUMBER
2626	

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *18* is/are allowed.

6)☒ Claim(s) *1-17 and 19-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 June 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Priority

1.   Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers

have been placed of record in the file.

Specification

2.   The lengthy specification has not been checked to the extent necessary to determine the

presence of all possible minor errors. Applicant's cooperation is requested in correcting any

errors of which applicant may become aware in the specification.

3.   Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a
separate sheet within the range of **50 to 150 words**. It is important that the abstract not exceed
150 words in length since the space provided for the abstract on the computer tape used by the
printer is limited. The form and legal phraseology often used in patent claims, such as "means"
and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist
readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the
title. It should avoid using phrases which can be implied, such as, "The disclosure concerns,"
"The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
> any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
> requirements of this title.

5.   Claim 16 is rejected under 35 U.S.C. 101 because the claimed invention is directed to

non-statutory subject matter. The print control program claimed is merely a set of instructions

per se. Since the print control program is merely a set of instructions not embodied on a

computer readable medium to realize the computer program functionality, the claimed subject

matter is non-statutory. See MPEP § 2106 IV.B.1.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6.   Claims 1-8, 10-16 and 19-22 are rejected under 35 U.S.C. 102(e) as being anticipated by

Chan (6,342,952).

Regarding claim 1: Chan discloses a means to acquire the data relating to actual colors which

is sent from said client (Fig. 1, computer 4 and col. 2, ln. 55-57), a means to create said color

matching information (Fig. 1, software package C 22 (part of server 10) and col. 3, ln. 55-60)

based on the thus acquired data and the data of said standard colors (database of color

information, col. 3, ln. 55-57), and a means to output the thus created color matching information

to said client (Fig. 1, computer 4 and col. 2, ln. 58 through ln. 3).

Regarding claim 2: Chan discloses a means to send to said server (Fig. 1, server 10) the data of

actual colors in the environment (col. 3, ln. 35-38) of said client (Fig. 1, computer 4), a means to

acquire said color matching information from said server (Fig. 1, server 10 and col. 3, ln. 30-35),

and a means to convert said color data based on said color matching information (Fig. 1,

software package B 20 and col. 3, ln. 51-54).

Regarding claim 3: Chan discloses a measured data acquiring means (Fig. 1,

spectrophotometer 2) to acquire the measured data of the image for colorimetry having a

plurality of tones (spectral data, col. 2, ln. 53-55) for each of said printing colorants which is

printed by said print control client (Fig. 1, automated dispensing equipment 24 and col. 4, ln. 4-

11), a color matching information creating means (Fig. 1, server 10) to create said color

matching information (Fig. 1, software package C 22 (part of server 10) and col. 3, ln. 55-60)

based on the measured data of the image for colorimetry (spectral data, col. 2, ln. 53-55) for said

individual printing colorants and the measured data of said standard colors corresponding to the

printing colorants which have previously been acquired (col. 3, ln. 39-50), and a color matching

information output means (Fig. 1, server 10) to output the color matching information created by

the color matching creating means to said print control client (Fig. 1, automated dispensing

equipment 24 and col. 4, ln. 4-11).

Regarding claim 4: Chan discloses a colorimetry image print control means (Fig. 1,

spectrophotometer 14) to control the printing of images for colorimetry with a plurality of tone

for each of said printing colorants (col. 3, ln. 39-50 and col. 4, ln. 4-11), a data sending means

(Fig. 1, software A 12) to receive the input of the measured data (spectral data) of the color

measuring image and sends it to said print control server (Fig. 1, server 10), a matching color

information acquisition means (Fig. 1, automated dispensing equipment 24) to acquire said color

matching information from said print control server (Fig. 1, server 10), and a means to convert

said print data into said color data based on said color matching information (col. 3, ln. 39-50

and col. 4, ln. 4-11).

Regarding claim 5: Chan satisfies all the elements of claim 3. Chan further discloses wherein

the measured data (spectral data) of said print control client (Fig. 1, automated dispensing

equipment 24) is lightness data of the image for colorimetry with a plurality of tones for each of

said printing colorants (col. 3, ln. 55 through ln. 11).

Regarding claim 6: Chan satisfies all the elements of claim 4. Chan further discloses wherein the measured data (spectral data) of said image for colorimetry is lightness data and said data sending means (Fig. 1, software A 12) receives the input of the lightness data of the image for colorimetry and sends it to said print control server (Fig. 1, server 10 and col. 3, ln. 55 through ln. 11).

Regarding claim 7: Chan discloses a colorimetry image print control means (Fig. 1, spectrophotometer 14) to perform control to print colorimetry images with a plurality of tones for each of said printing colorants (col. 3, ln. 39-50 and col. 4, ln. 4-11), a lightness data sending means (Fig. 1, software A 12) to receive the input of the lightness data of said colorimetry image and send it to said print control server (Fig. 1, server 10 and col. 3, ln. 55 through ln. 11), and a color matching information acquisition means (Fig. 1, automated dispensing equipment 24) to acquire said color matching information from said print control server (Fig. 1, server 10), said print control server (Fig. 1, server 10) comprising: a standard color lightness data storing region (Fig. 1, software package C 22) in which is stored the lightness data of said standard color, a lightness data acquisition means (Fig. 1, spectrophotometer 14) to acquire the lightness data of the colorimetry image for each of said printing colorants (col. 3, ln. 39-50) which is printed by said print control client (Fig. 1, automated dispensing equipment 24 and col. 4, ln. 4-11), a color matching information creating means (Fig. 1, software package C 22 (part of server 10) and col. 3, ln. 55-60) to create said color matching information based on the lightness data of the colorimetry image (spectral data, col. 2, ln. 53-55) for each of said printing colorants and the lightness data of said standard colors corresponding to the printing colorants (col. 3, ln. 39-50), and a color matching information output means (Fig. 1, server 10) to output to said print control

client (Fig. 1, automated dispensing equipment 24) the color matching information created by the color matching information creating means (Fig. 1, software package C 22 (part of server 10) and col. 3, ln. 55-60), said print control client (Fig. 1, automated dispensing equipment 24 and col. 4, ln. 4-11): prints said colorimetry image for each of the printing colorants by said colorimetry image print control means (Fig. 1, spectrophotometer 14), receives the input of the lightness data of said colorimetry image by said lightness data sending means (Fig. 1, software A 12), and sends it to said print control means (Fig. 1, spectrophotometer 14), and said print control server (Fig. 1, server 10): receives the lightness data from said print control client (Fig. 1, automated dispensing equipment 24 and col. 4, ln. 4-11) by said lightness data acquisition means (Fig. 1, spectrophotometer 14), creates the color matching information by said color matching information creating means (Fig. 1, software package C 22 (part of server 10) and col. 3, ln. 55-60) based on the lightness data and said lightness data stored in said standard color lightness data storing region (Fig. 1, software package C 22), and sends the thus created color matching information to said print control means (Fig. 1, spectrophotometer 14) by said color matching information output means (Fig. 1, server 10), said print control client (Fig. 1, automated dispensing equipment 24 and col. 4, ln. 4-11): acquires said color matching information from said print control server (Fig. 1, server 10 and col. 3, ln. 55 through ln. 11) by said color matching information acquisition means (Fig. 1, automated dispensing equipment 24), and converts said print data into said color data based on the color matching information (Fig. 1, software package B 20 and col. 3, ln. 51-54).

Regarding claim 8: Chan satisfies all the elements of claim 7. Chan further discloses wherein said print control client (Fig. 1, automated dispensing equipment 24 and col. 4, ln. 4-11) has an

image data sending means (Fig. 1, software A 12) to acquire image data from an image capturing

equipment (Fig. 1, computer 4) to capture image data of an image for colorimetry and send it to

said print control server (Fig. 1, server 10 and col. 3, ln. 55 through ln. 11), and said lightness

data acquisition means (Fig. 1, spectrophotometer 14) converts the image data entered from said

print control client (Fig. 1, automated dispensing equipment 24 and col. 4, ln. 4-11) into the

lightness data, thereby acquiring the lightness data of said image for colorimetry (col. 3, ln. 55

through ln. 11).

Regarding claim 10: Chan satisfies all the elements of claim 7. Chan further discloses wherein

said color matching information (Fig. 1, software package C 22 (part of server 10) and col. 3, ln.

55-60) is a tone value correction table (database, col. 3, ln. 55-60) which makes the tone value of

the color data converted from said print data correspond to the tone value for color reproduction

to match said standard color with printing colorants corresponding to said color data (col. 3, ln.

55 through ln. 3).

Regarding claim 11: Chan satisfies all the elements of claim 7. Chan further discloses wherein

said color matching information (Fig. 1, software package C 22 (part of server 10) and col. 3, ln.

55-60) is provided in the form of color conversion table in which the relation between input

(desired color) and output (printed ink) is corrected (col. 3, ln. 55 through ln. 3).

Regarding claim 12: Chan satisfies all the elements of claim 7. Chan further discloses wherein

said print control client (Fig. 1, automated dispensing equipment 24 and col. 4, ln. 4-11) is

constructed of a first (Fig. 1, automated dispensing equipment 24 and col. 4, ln. 4-11) and second

print control clients (ink is packaged and shipped to the printer, col. 4, ln. 8-11), said first print

control client (Fig. 1, automated dispensing equipment 24 and col. 4, ln. 4-11) comprising a

standard color lightness data sending means (Fig. 1, software A 12) to receive the input of the

lightness data of said standard colors and sends to said print control server (Fig. 1, server 10) the

lightness data of standard colors which has been entered (col. 3, ln. 55 through ln. 11), said print

control server (Fig. 1, server 10) comprising a standard color lightness data storing means to

store in said standard color lightness data storing region (Fig. 1, software package C 22) the

lightness data of said standard colors which is entered from said first print control client (Fig. 1,

automated dispensing equipment 24 and col. 4, ln. 4-11), said color matching information output

means (Fig. 1, server 10) outputs to said second print control client (ink is packaged and shipped

to the printer, col. 4, ln. 8-11) said color matching information (Fig. 1, software package C 22

(part of server 10) and col. 3, ln. 55-60) which has been created based on the lightness data of

said standard colors entered from said first print control client (Fig. 1, automated dispensing

equipment 24 and col. 4, ln. 4-11).

Regarding claim 13: Chan satisfies all the elements of claim 12. Chan further discloses

wherein the standard color lightness data storing means (Fig. 1, software package C 22) of said

print control server (Fig. 1, server 10) is capable of storing said lightness data entered from a

plurality of said first print control clients (manufacturing facility is selected by the server and can

be at any remote location, col. 3, ln. 20-29 and col. 2, ln. 32-47) for the first print control clients

(manufacturing facilities chosen by the server, col. 3, ln. 20-29 and col. 2, ln. 32-47)

individually, said print control server (Fig. 1, server 10) has a list outputting means (Fig. 1,

server 10) to create a list of the first print control clients (manufacturing facility is selected by the

server and can be at any remote location, col. 3, ln. 20-29 and col. 2, ln. 32-47) which entered the

lightness data and outputs it to said second print control clients (ink is packaged and shipped to

the printer, col. 4, ln. 8-11), said second print control clients (ink is packaged and shipped to the

printer, col. 4, ln. 8-11) has a select input receiving means (Fig. 1, server 10) to make one select

specific first print control clients (manufacturing facility is selected by the server and can be at

any remote location, col. 3, ln. 20-29 and col. 2, ln. 32-47) based on the list output from said list

output means (Fig. 1, server 10), and a select result output means (Fig. 1, server 10) to sends the

first print control client (Fig. 1, automated dispensing equipment 24 and col. 4, ln. 4-11) selected

and input to said print control server (Fig. 1, server 10 and col. 3, ln. 55 through ln. 11), said

color matching information creating means (Fig. 1, software package C 22 (part of server 10)

and col. 3, ln. 55-60) specifies the lightness data of said standard colors based on said selected

and input first print control client (Fig. 1, automated dispensing equipment 24 and col. 4, ln. 4-

11) which has been sent from said select result output means (Fig. 1, server 10), thereby creating

said color matching information (Fig. 1, software package C 22 (part of server 10) and col. 3, ln.

55-60) corresponding to the lightness data of said second print control client, and said color

matching information output means (Fig. 1, server 10) outputs said color matching information

to said second print control clients (ink is packaged and shipped to the printer, col. 4, ln. 8-11).

Regarding claim 14: Chan satisfies all the elements of claim 7. Chan further discloses wherein

said print control client (Fig. 1, automated dispensing equipment 24 and col. 4, ln. 4-11) has an

identification information sending means (Fig. 1, server 10, col. 3, ln. 20-29) which acquires the

identification information of the equipment (col. 3, ln. 20-29) which reproduces colors with said

printing colorants (col. 4, ln. 4-11) and sends it to said print control server (Fig. 1, server 10 and

col. 3, ln. 55 through ln. 11), and said color matching information creating means (Fig. 1,

software package C 22 (part of server 10) and col. 3, ln. 55-60) creates said color matching

information based on the lightness data of said standard colors corresponding to the

identification information (col. 3, ln. 20-29) entered from said print control client (Fig. 1,

automated dispensing equipment 24 and col. 4, ln. 4-11).

Regarding claim 15: The structural elements of apparatus claim 3 perform all of the steps of

method claim 15. Thus, claim 15 is rejected for the same reasons discussed in the rejection of

claim 3.

Regarding claim 16: Arguments analogous to those stated in the rejection of claim 3 are

applicable. A recording medium that stores a print control program is inherently taught as

evidenced by CPUs (4, 10) and various memories stored therein.

Regarding claim 19: Chan discloses creating color matching information (Fig. 1, software

package C 22 (part of server 10) and col. 3, ln. 55-60) based on the data relating to actual colors

and the data of standard colors (database of color information, col. 3, ln. 55-57).

Regarding claim 20: Chan discloses creating color matching information (Fig. 1, software

package C 22 (part of server 10) and col. 3, ln. 55-60) based on the data relating to actual colors

output by a printing device (col. 3, ln. 55 through ln. 11) other than standard machines (col. 4, ln.

30-39) and the data of standard colors (database of color information, col. 3, ln. 55-60) output by

a printing device which is the standard machine (identity of the printer, col. 4, ln. 22-26) (Fig. 2).

Regarding claim 21: Chan satisfies all the elements of claim 19. Chan further discloses

wherein the data of standard colors is lightness data (light spectrum, col. 3, ln. 55 through ln. 11).

Regarding claim 22: Chan satisfies all the elements of claim 20. Chan further discloses

wherein the data of standard colors is lightness data (light spectrum, col. 3, ln. 55 through ln. 11).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

8.   Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chan (6,342,952).

Regarding claim 9: Chan satisfies all the elements of claim 8.

Chan fails to specifically address a scanner as a capturing device in the first embodiment,

but discloses it in the third embodiment.

Chan discloses wherein said image capturing equipment is a scanner (col. 5, ln. 10-14).

It would have been obvious to a person of ordinary skill in the art at the time of the

invention to combine the first and third embodiments in order to provide another means of

inputting the desired color (col. 5, ln. 10-14).

9.   Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chan in view of

Yamamoto et al. (6,134,022).

Regarding claim 17: Chan discloses a communicating means (global communication network,

col. 2, ln. 58 through ln. 18) capable of transmission and reception of data through a

communication line (Fig. 1, between computer 4 and server 10), a read color data acquisition

means (Fig. 1, spectrophotometer 14) to acquire through said communication line (Fig. 1,

between computer 4 and server 10); a color character description data acquisition means (Fig. 1,

software package C 22 (part of server 10) and col. 3, ln. 55-60) to acquire through a prescribed

interface (Fig. 1) the color character description data to match the print color data (col. 3, ln. 55

through ln. 3) of the image input device (Fig. 1, spectrophotometer 14) with the prescribed

standard color space coordinate values (col. 4, ln. 46-58), a profile data creating means (Fig. 1,

software package C 22 (part of server 10) and col. 3, ln. 55-60) to create the profile data defining

correspondence between the printed color data (col. 3, ln. 55-60) and the prescribed standard

color space coordinate values (col. 4, ln. 46-58) by matching the read color data with the

standard color space coordinate value (col. 4, ln. 46-58) with reference to the color character

description data (col. 3, ln. 55 through ln. 3), and a profile data output means (Fig. 1, server 10)

to output through the communication line (Fig. 1, between computer 4 and server 10) the thus

created profile data.

Chan fails to specifically address a prescribed image input device in the first

embodiment, but discloses it in the third embodiment.

Chan discloses the read color data obtained by reading with a prescribed image input

device (scanner, col. 5, ln. 10-15).

It would have been obvious to a person of ordinary skill in the art at the time of the

invention to combine the first and third embodiments in order to provide another means of

inputting the desired color (col. 5, ln. 10-14).

Chan also fails to specifically address the printing of a color chart and scanning the

printed color chart.

Yamamoto et al. disclose color charts printed by a specific printing device based on

prescribed print color data (Fig. 30 and col. 39, ln. 9-20).

It would have been obvious to a person of ordinary skill in the art at the time of the

invention to include scanning a printed color chart in order to provide even more options of

inputting in order to obtain a more accurate color match by correcting color deviation as suggested by Yamamoto et al. (col. 39, ln. 9-20).

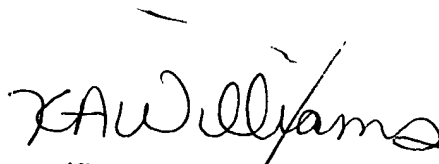*Allowable Subject Matter*

10.   Claim 18 is allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charlotte M. Baker whose telephone number is 571-272-7459. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A. Williams can be reached on 571-272-7471. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CMB

KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER